

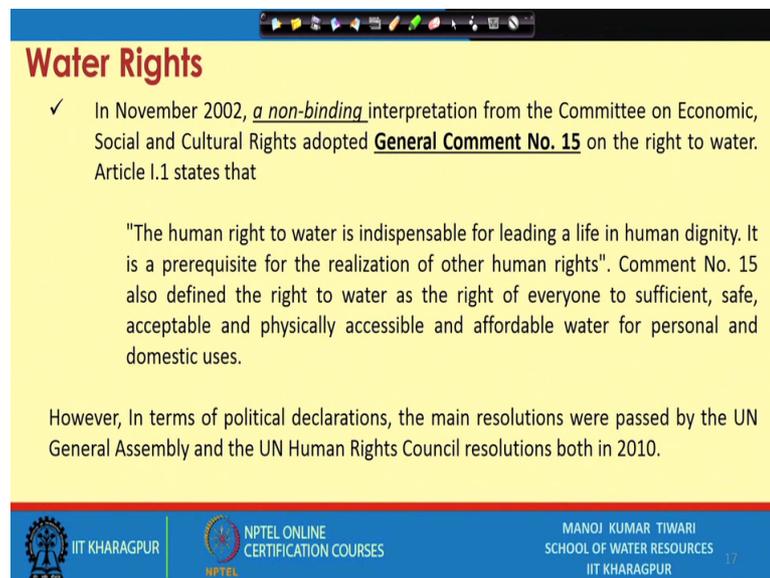
**Water Economics and Governance**  
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**Lecture - 07**  
**Water Rights**

Welcome everyone. So, we have been, in previous session we have been talking about the water rights where we ended up giving some background on to what is the worldwide situation of water crisis and what is the need of water rights. Then we took some examples that how water rights although have not been mentioned explicitly, but has been primarily incorporated as an implicit inclusion into the right to life or right to health. There has been various judicious precedences which we some of which we saw from our own country. There has been similar cases rest were as well.

So, in this lecture we will be continuing our discussion where we talk about what exactly is water rights or right to water and what is the history and how it has come into the existence that way.

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**Water Rights**

✓ In November 2002, *a non-binding* interpretation from the Committee on Economic, Social and Cultural Rights adopted **General Comment No. 15** on the right to water. Article I.1 states that

"The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights". Comment No. 15 also defined the right to water as the right of everyone to sufficient, safe, acceptable and physically accessible and affordable water for personal and domestic uses.

However, In terms of political declarations, the main resolutions were passed by the UN General Assembly and the UN Human Rights Council resolutions both in 2010.

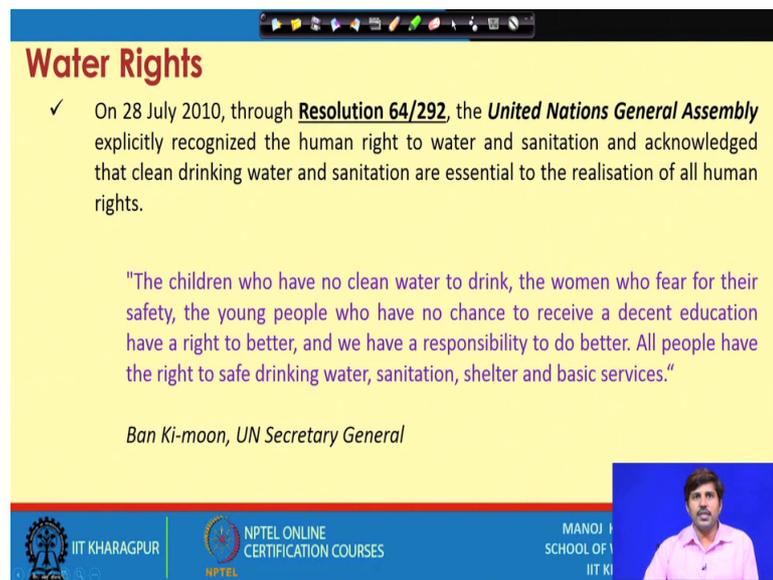
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So, in November, 2002, a non binding interpretation from the committee on economics social and cultural rights adopted the general comment number 15 on the right to water. So, that article stated that the human right to water is indispensable for leading a life in human dignity. It is prerequisite for the realization of other human rights. That was the

comment number 15 which also defined the right to water as right to everyone to sufficient safe acceptable physically accessible and affordable water for personal and domestic uses.

However, although it was sort of added as a comment in 2002, but it was as late as in 2010 when in terms of political declaration this resolution was passed by the UN general assembly and the UN human right council resolution in 2010 at both the places.

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**Water Rights**

✓ On 28 July 2010, through **Resolution 64/292**, the **United Nations General Assembly** explicitly recognized the human right to water and sanitation and acknowledged that clean drinking water and sanitation are essential to the realisation of all human rights.

"The children who have no clean water to drink, the women who fear for their safety, the young people who have no chance to receive a decent education have a right to better, and we have a responsibility to do better. All people have the right to safe drinking water, sanitation, shelter and basic services."

*Ban Ki-moon, UN Secretary General*

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So, on actually 28th of July 2010 the really the resolution 64 by 292 of the UN national general assembly explicitly recognized the human right to water and sanitation and acknowledged that drinking water and sanitation are essential in realization of all human rights. So, it was in July 2010 which on what scale the United Nations general assembly has passed this resolution.

The Ban Ki-moon, the UN general secretary said that the children who have no clean water to drink, the woman who fear for their safety, the young people who have no chance to receive decent education have a right to better and we have a responsibility to do better. All people have right to safe drinking water, sanitation, shelter and basic services.

So, this was his comment from the address that he delivered after the resolution on to the right to water was passed in the UN general assembly.

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**Water Rights**

- ✓ UN General Assembly Adopts Resolution Recognizing Access to Clean Water, Sanitation as Human Right, by Recorded Vote of 122 in Favour, None against, 41 Abstentions
- ✓ States and international organizations to provide financial resources, build capacity and transfer technology, particularly to developing countries, in scaling up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all.
- ✓ The Assembly expressed deep concern that some **884 million people were without access to safe drinking water** and **more than 2.6 billion lacked access to basic sanitation**.
- ✓ It expressed alarm that **1.5 million children under five years old died each year as a result of water- and sanitation-related diseases**, acknowledging that safe, clean drinking water and sanitation were integral to the realization of all human rights.

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The general assembly adopted this resolution recognizing access to clean water and sanitation as basic human right by a recorded vote of 122 in favor none against and 41 abstention. So, basically nobody was, no nation was against to the inclusion of right to water in the basic human rights.

The state and various international organizations were to provide financial resources, build capacity and technology transfer particularly to the developing countries for scaling up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all.

So, this is also came out of the discussion because we know that the world itself has huge demarcation in terms of technology, in terms of growth, in terms of development. There are underdeveloped nations which are lacking of even the basic amenities and basic facilities there are developing nations which are sort of now growing towards the towards sort of a better managed better controlled ambience environment or better facilitated world rather we can say. And then there are developed nations which already have the high end facilitations available for leading their daily life.

So, some of the nations are very advanced in the technology terms, some of the nations are actually lacking in even the basic technology. So, in its general discussion it was said that it is the responsibility of various nations states and various international organizations including United Nations, WHO, UNICEF all these in together to provide

the necessary financial resources. So, whatever is the financial resources needed in order to ensure the right to water for the capacity building and technology transfer. So, in they will provide adequate necessary technology as well for building capacity of water management because making water available to everyone is not an easy task. Water is available free, but it is available only at the resources. Taking that water from the resources and transporting it processing it first in order to purification and all that and thereafter transporting it to the consumer and or tap of the consumer requires certain amount of finance, certain amount of technology, certain amount of managerial and management inputs.

So, it was decided discussed that the various states developed states in particular and international organizations are going to help the developing and underdeveloped nations in order to capacity building, technology transfer, financial resource support and that their way the scaling up efforts to provide the safe, clean accessible and affordable drinking water and sanitation which was sort of granted under the right to water. So, this assembly also expressed deep concern that some 884 million people this number is appearing again and again, but that is what was the status at that point of time when it was realized that around that many number of people were without access to safe drinking water and more than 2.6 billion people lacked access to the basic sanitation. So, sanitation cases were even worse, almost three-fourth of the people with lack of access of the safe drinking water.

It was also expressed that around 1.5 million children under 5 years old is die each year as a result of water and sanitation related diseases and acknowledging that safe clean drinking water and sanitation is integral part for the their sustaining safe and affordable and equitable life.

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**Water and Sanitation in International Law:**

*Water and sanitation are explicitly* recognised as a human right that is essential for the full enjoyment of life and all other human rights in

- The UN General Assembly Resolution (2010).
- The Human Rights Council Resolution (2010)
- The UN General Assembly Resolution A/RES/68/157 (2013) - reaffirmed
- The Human Rights Council Resolution A/HRC/RES/24/18 (2013) – reaffirmed
- The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)
- The Convention on the Rights of the Child (CRC)
- The Convention on the Rights of Persons with Disabilities (CRPD)

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There has been various other international laws which sort of, which again emphasized the water and sanitation explicitly as human right and essential component for the life. There is we just talked that there is a UN general assembly resolution in 2010 that was done then the human rights council resolution again in 2010 did that. The same was reaffirmed in UN general national assembly resolution in 2013 and human rights council resolution in 2013. Then there is a convention of the elimination of all forms of discrimination against women, the convention on the rights of the child, the convention on the rights of the person with disabilities. So, all these conventions also included that the, explicitly included the right to water and sanitation for this target, community under these conventions.

Target communities like the CRPD has that all the persons with disability, also have right to access to the safe and adequate amount of drinking water and sanitation facilities. Similarly the CRC emphasized that right for the child of the safe and adequate amount of clean amount of water and sanitation facilities so that way and then there was committee on the women in the similar fashion.

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**What do water rights entitle ?:**

**The human right to water** entitles everyone without discrimination to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use.

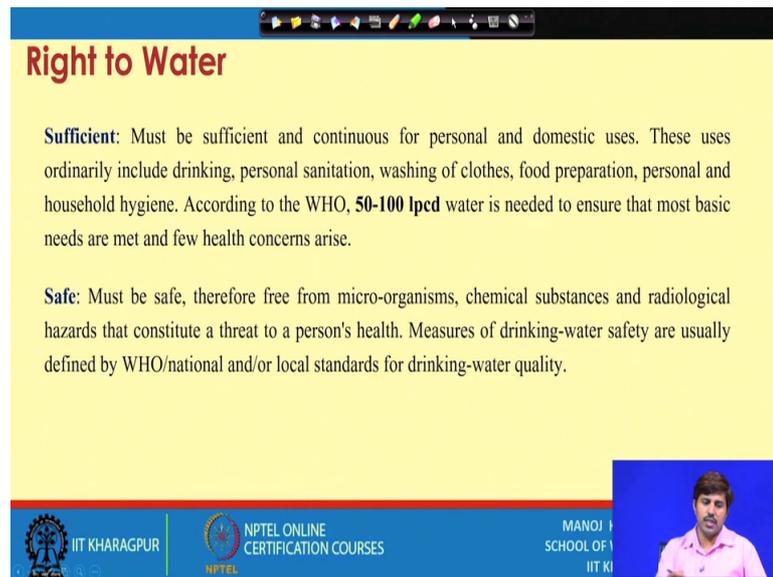
**The human right to sanitation** entitles everyone without discrimination to physical and affordable access to sanitation, in all spheres of life, which is safe, hygienic, secure, socially and culturally acceptable, which provides for privacy and ensures dignity. Sanitation is defined as a system for the collection, transport, treatment, disposal or reuse of human excreta and associated hygiene.

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So, what do these water rights entitle, what they do provide us? So, the human right to water entitles everyone without discrimination the sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.

So, we will be basically elaborating these terms one by one that what means by the sufficient safe acceptable accessible affordable all these terms, but this what the human right to water entitles. The human right to sanitation entitles everyone again without discrimination to a physical and affordable access to sanitation in all spheres of life which is safe, hygiene, secure, socially and culturally acceptable which provides for privacy and ensures dignity. The sanitation is defined as a system for the collection transport treatment, disposal or reuse of human excreta and associated hygiene. So, that is what was covered under sanitation and sort of like it was realized, it was mentioned that everyone should be entitled to sort of safe and accessible sanitation, but the due consideration has been given to the hygiene, security social and cultural acceptability and privacy also. So, the sanitation should be ensured, but in a well dignified manner that is what sanitation right was entitled.

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**Right to Water**

**Sufficient:** Must be sufficient and continuous for personal and domestic uses. These uses ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene. According to the WHO, **50-100 lpcd** water is needed to ensure that most basic needs are met and few health concerns arise.

**Safe:** Must be safe, therefore free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person's health. Measures of drinking-water safety are usually defined by WHO/national and/or local standards for drinking-water quality.

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Coming on to the right to water, as we were just talking about that right to water if you see over here, the right to water entitles, the right to water entitles the you see these terms the sufficient water, safe water, acceptable physically accessible and affordable. So, let us see what these actually includes.

Sufficient water means there must be sufficient and continuous water for personal and domestic uses. So, if you see these uses domestic uses will include drinking. So, there has to be adequate amount of water available for drinking, personal sanitation, washing including clothes and bathing everything then food preparation personal and household hygiene. So, that was the entire components that were considered for under the right to water. So, for a domestic purpose right to water does not entitle only drinking water to everybody, it entitles water for drinking purpose, sanitation purpose, cloth washing, bathing purpose, food preparation purpose, cooking purpose personal and household hygiene purpose. So, this everything was included and WHO the world health organization said that this water the total amount of water should be somewhere in between 50-100 lpcd minimum is needed to ensure that most basic needs are met and few health concerns arise, only few health concerns arise.

So, generally when we say the sufficient quantity of water is needed it means that the water supplied to each and every, means each person has a right to have at least 50 to 100 lpcd of water for the aforementioned purpose which we are just saying including from

drinking to maintaining the personal and household hygiene. So, for all these purpose one should have access to 50 to 100 lpcd of water.

Now, if you recall our discussions earlier discussions. So, even the amount of water which is supplied through the pipe system in India in different cities many places the per capita supply is less than 50 lpcd. So, we are not exactly meeting the right to water in terms of for the cities that are connected to the piped water supply system, forget about those which are not connected. So, there the situations are even more pathetic, but for the places where we have a sanitation system and all that in proper water supply system and this thing in practice because of the resource constraint, because of the technology constraint or because of the other constraints at times we are not able to supply even 50 lpcd of water on an average whereas, at places much more than 100 lpcd is supplied. So, anyway the right to water does not say that one cannot get more than 100 lpcd water.

So, of course, the demands could be higher for water and provided the availability in the state or availability in the reason, if utilities are able to supply more water to meet the demand in a sustainable manner that is fair, but the criteria was towards the minimum amount and minimum amount is 50 to 100 lpcd depending on the climate, depending on the reason, depending on the case. So, that is what about the sufficient supply of water.

Now, if you see the another criteria was the safe water. Now, safe water says that the water must be safe, safe from what? Safe from, safe means it should be free from microorganisms, chemical substances and radiological hazards that constitute threat to a person's health. So, this actually this right or this clause specifically relates to the quality of water. The first point when we say that sufficient water is about the quantity of water that one should be made available with sufficient quantity of water, while the safe indicates that sufficient quality of means significantly better or safe quality of water should be made available.

The safe quality of water means free from microorganisms any sort of pathogens that actually leads to the water related diseases. So, it should not contain those things should be should not contain chemical and toxic substances and should be sort of free from the radiological hazards as well. Radioactive elements various emerging pollutants and all these which are actually coming into our natural waters these days are being detected more often than now should be removed before water is supplied. So, at least minimum

treatment which removes the microorganisms, which removes the threatening chemical substances at least and other hazards needs to be removed from the water before it is supplied.

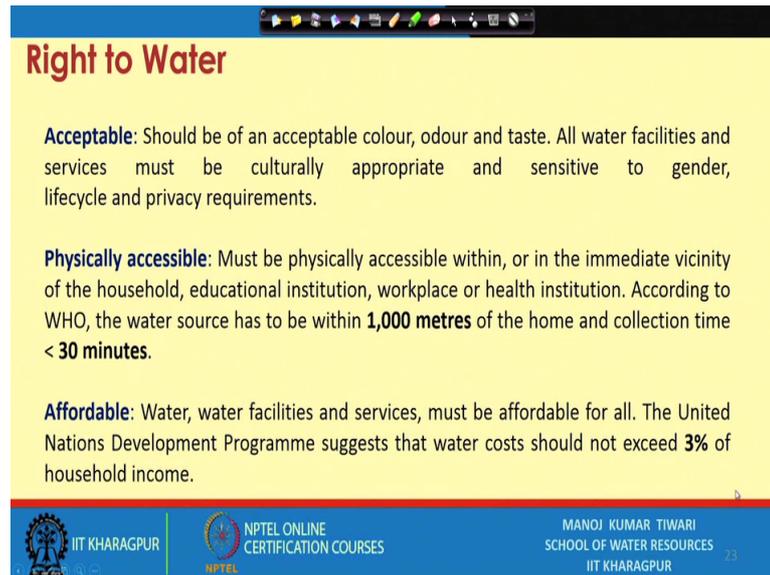
This the drinking water safety is usually defined by WHO national or local standard for drinking water quality we have our own BIS which is Bureau of Indian Standards for drinking water quality. There are various international norms also, there is Standards from WHO, European commission has their own standards, then United States Environmental Protection Agency, USEPA has their own standards for drinking water. So, that way the BIS or Bureau of Indian Standards has its own drinking water standards. So, one actually must be, one must ensure that the water that is supplied or the government must ensure another state must ensure that the water that is supplied or that is being made available to the citizen should be of safe quality.

Unfortunately the kind of pollution that is arising these days the kind of exposure of the contaminants that are coming into the water our conventional treatment systems are not capable of removing all of these. So, our conventional treatment systems basically from the water supply removes the suspended and some colloidal impurities in the water. So, they will reduce down the turbidity they will reduce down some suspended solids by the means of coagulation flocculation processes or fill and there after filtration processes and remove the microorganisms from the water disease causing microorganisms or pathogens which are removed usually by disinfection, so they are removed.

However, these days if you analyze water from any river or lake or this thing you will find many of the emerging contaminants that are coming which are some of them are actually the threatening chemical substances. There are pesticides that are coming, there are various pharmaceutical products, antibiotics and some other industrial contaminants that are coming into the water and our traditional water treatment facilities are not well equipped or are not capable of removing these pollutants to significant level. So, that way the water that is actually being fed into the distribution pipelines may be safe in terms of microbial contamination because that chlorination is primarily removes most of the microbial contamination. So, they may be safe in terms of microbial contamination, but it is difficult to necessarily say that they are safe in terms of the chemical substances also.

So, this needs to be taken care by the right to water and that is why we have seen several judicial precedences. So, somebody claiming these thing coming into the water will actually put the government again into the trouble. So, that is the two aspects which makes the sufficient amount of water which is in terms of sufficient quantity of water and safe water which is the safe quality of water.

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**Right to Water**

**Acceptable:** Should be of an acceptable colour, odour and taste. All water facilities and services must be culturally appropriate and sensitive to gender, lifecycle and privacy requirements.

**Physically accessible:** Must be physically accessible within, or in the immediate vicinity of the household, educational institution, workplace or health institution. According to WHO, the water source has to be within **1,000 metres** of the home and collection time **< 30 minutes**.

**Affordable:** Water, water facilities and services, must be affordable for all. The United Nations Development Programme suggests that water costs should not exceed **3%** of household income.

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There were other terms, so one of them was acceptable. Now, the acceptable water means acceptable aesthetically, now there is a very thin line between acceptable and safe water. Water may be safe in terms of biological, in terms of microbial contamination or chemical contamination or may be safe in terms of health protection, so that will not cause any sort of health issues if consumed, but may not be acceptable aesthetically.

If somebody is offered a glass of water to drink and he does not know the source of water and see that water is having some greenish color or some sort of color into it into the water will he drink it, positively no. He will deny, he say that this water looks contaminated it is having some sort of color in it, although that color may not be toxic that color may not be problematic because we use a lot of food colors that we consume anyway with our food. So, that is not problem in consumption of those color. But when you add that color to the water somebody observing that there is some color to that water will probably deny consuming that water. So, that water may be safe conceptually technologically it may be safe because it is not having anything that can cause disease, it

may be having some consumable color means organic color or consumable color which is not our problem. So, that way the safety from safety prospective it is fine, but from aesthetic prospective it may not.

So, when we say that water is to be acceptable; that means, should be acceptable in color order and taste. If you add some color or some other stuff we check which is actually sort of imparting some taste to water people will just take a sip and say oh this is not good quality water this is having some taste in it, unusual than the taste of clean or normal water ok Similarly, if water is sort of giving some odor some smell people will reject that water will not use that for consumption although that odor causing, color causing, and taste causing compounds may not be unsafe from health prospective, but still they will make that water unacceptable.

So, for sort of general purpose the water for domestic application purpose the water that is supplied should be acceptable in terms of color order and taste apart from being safe from the disease causing stuff whether it is enough from a microbials or it is in the form of chemical. So, all water facilities and services must be appropriate and sensitive to gender, lifecycle and privacy requirements.

Again this is a very important aspect. Let us say acceptable for example, if let us say a water treatment facility or a water utility is using some bone char or bone material or some those kind of stuff for treating water. So, now, they have purified the water, water is safe from disease causing stuff. So, that way what our quality is good, but it has been processed through a material which is unacceptable to the some part of the society. Some people in India would not like to drink water which is basically being processed by the animal bones or this kind of thing, though vegetarian people and all that will actually object culturally object that no this water is not adequate for us, for the drinking. So, that way water should be culturally appropriate and sensitive also to the lifestyle requirements of the people. So, that is in whole soul makes the water acceptable which is again in terms of sort of prospective of the quality, should be safe as well as acceptable.

Now, then another clause says that it should be physically accessible water is being made available to public, but water should be physically accessible also means water should not be made 5 kilometers away that we are providing you water, but you have to walk these walk down the line this 5 kilometer to collect the your share of the water that is not

the physical accessibility. So, water actually must be physically accessible within or almost the immediate vicinity of household, educational institutions, workplace and health institutions. So, according to WHO the water source should be within one kilometer of the home and collection time should be less than 30 minutes. So, that is the extreme case. It does not say that you provide water in 1 kilometer periphery and that is fine in extreme cases where there is no alternate arrangement can be made where there is not possible of household supply at least water should be made available within 30 minutes, within 30 minutes of the collection time and within 1 kilometer of the distance.

Generally it should be made accessible within immediate vicinity of the household or institutions or workplace and this thing so that one does not need to go long distances for the collection purpose only. So, that is another criteria which right to water emphasized.

And the last, but not the least was the affordability. So, we will talk in the later part of this course that water is sort of economic commodity and nobody says that water should be provided free. But it should be affordable it is not free, but it should be affordable means that the water, water facilities and water services should be affordable for all section of the community. So, human development program suggested that water cost should not exceed 3 percent of the household income.

Now, if you just recall their or earlier discussion, when we are discussing it in the previous lecture in some places in Nairobi or other places the price that is paid for connecting to the water supply system is the 3 months income or of 6 months income. So, that is way too expensive of water utility, that is not an affordable way to supply water. As per the UN adaptation, UN development program the water should be affordable at a cost less than 3 percent of the household income. So, these are some of the elements which was included in right to water. So, right to water insures sort of sufficient quantity safe and acceptable quality near accessibility and affordable cost.

So, the assembly sort of overviewed all these aspects in terms of quantity, in terms of quality, in terms of accessibility and in terms of the financial affordability. So, that way summarizing all this the right to water was developed and accepted in 2010.

So, we will stop here for this lecture and then continue on to the discussing the other aspects in the subsequent in next class.

Thank you.